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Webinar, Part II: Four Types of Cyclists: A National Look

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Four Types of Cyclists

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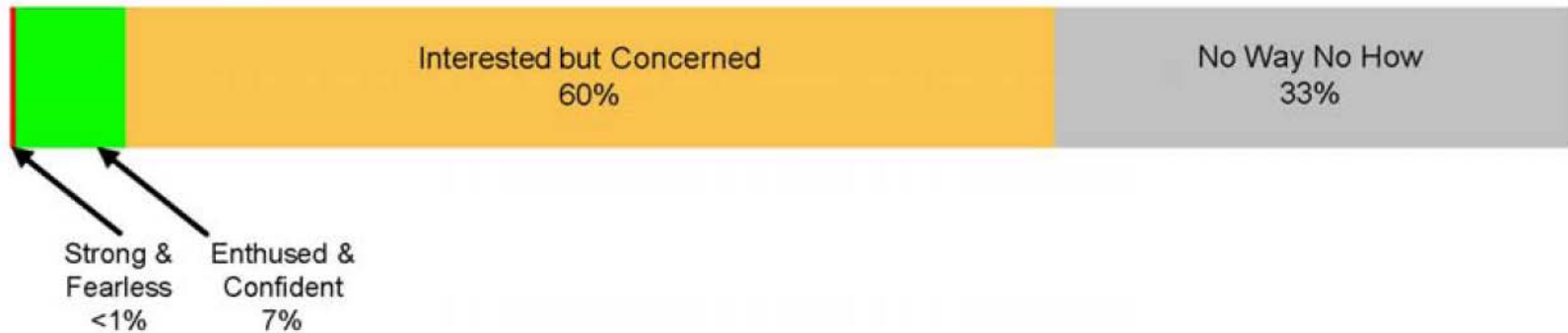
Portland State University

Portland, OR, USA

NITC Webinar, August 11, 2015

Portland's "Four Types"

Four Types of Transportation Cyclists in Portland By Proportion of Population



Roger Geller, Bicycle Coordinator, Portland Office of Transportation, *Four Types of Cyclists*

<http://www.portlandonline.com/transportation/index.cfm?a=264746&c=44597>

Where did they come from?

Four Types of Cyclists

Roger Geller, Bicycle Coordinator
Portland Office of Transportation

Despite all the considerable advances Portland and the region have made in facilitating bicycling, concerns about the safety of bicycling still loom large. Riding a bicycle should not require bravery. Yet, all too often, that is the perception among cyclists and non-cyclists alike. No person should have to be "brave" to ride a bicycle, unfortunately, this is a sentiment commonly expressed to those who regularly ride bicycles by those who do not. There are many cities in modern, industrialized nations around the world with a high bicycle mode split. They have achieved these high levels of bicycle use through adherence to various cycling-promoting policies and practices. But, one thing they share in common is they have substantially removed the element of fear associated with bicycling in an urban environment. They have created transportation systems in which bicycling is often the most logical, enjoyable and attainable choice for trips of a certain length for a wide swath—if not the majority—of their populace. For residents of these cities, concern about personal safety associated with bicycling is rarely a consideration, and certainly not to the levels we experience here. In these "fearless" cities septuagenarians are able to ride alongside seven-year-olds safely, comfortably, and with confidence throughout the breadth of the cities¹. Making bicycling a more widespread and mainstream means of transportation in Portland will require substantially addressing concerns about personal safety.

Describing the four general categories of transportation cyclists in Portland and their differing needs best precedes a discussion of bikeway treatments. For lack of better terminology, Portlanders can be placed into one of the four following groups based on their relationship to bicycle transportation²: "The Strong and the Fearless," "The Enthusiast and the Confident," "The Interested but Concerned," "The fourth group are non-riders, called the "No Way No How" group.

Survey after survey and poll after poll has found again and again that the number one reason people do not ride bicycles is because they are afraid to be in the roadway on a bicycle. They are generally not afraid of other cyclists, or pedestrians, or of injuring themselves in a bicycle-only crash. When they say they are "afraid" it is a fear of people driving automobiles. This has been documented and reported in transportation literature from studies, surveys and conversations across the US, Canada, and Europe.

Riding a bicycle should not require bravery. Yet, all too often, that is the perception among cyclists and non-cyclists alike.

¹ In The Netherlands and Germany, 50% of all trips made by people 75 and older is either by walking or bicycling. In The Netherlands, 25% of all trips made by such septuagenarians are by bicycle.

² This typology is for using the bicycle for transportation, only. People in all these groups—especially the "interested but concerned" group—may bicycle for recreation. This categorization addresses only their willingness to use a bicycle as a main means of transportation.

Who are they?

- Strong & Fearless
 - “will ride in Portland regardless of roadway conditions”
- Enthused & Confident
 - “comfortable sharing the roadway with automotive traffic, but they prefer to do so operating on their own facilities”
 - “They appreciate bicycle lanes and bicycle boulevards”
 - “attracted to cycling in Portland by...its bicycle network and supporting infrastructure”
 - About 60% of this group may now ride regularly for transportation

Who are they?

- Interested but Concerned
 - “curious about bicycling...They like riding a bicycle”
 - “But, they are afraid to ride.”
 - “Very few of these people regularly ride bicycles”
 - No Way No How
 - “not interested in bicycling at all, for reasons of topography, inability, or simply a complete and utter lack of interest.”
- “The separation between these four broad groups is not generally clear-cut...likely quite a bit of blurring...”

Important!

- The types are defined primarily by comfort level bicycling in different environments, NOT by their current bicycling behavior.

Previous Research: Portland

- Random phone survey of ~900 adults in the Portland, OR metropolitan area (2011)

Type	Description	City of Portland	Rest of region	All
Strong & Fearless	Very comfortable without bike lanes	6%	2%	4%
Enthused & Confident	Very comfortable with bike lanes	9%	9%	9%
Interested but Concerned	Not very comfortable, interested in biking more Not very comfortable, currently cycling for transportation but not interested in biking more	60%	53%	56%
No Way No How	Physically unable or don't know Very uncomfortable on paths Not very comfortable, not interested, not cycling for transportation	25%	37%	31%

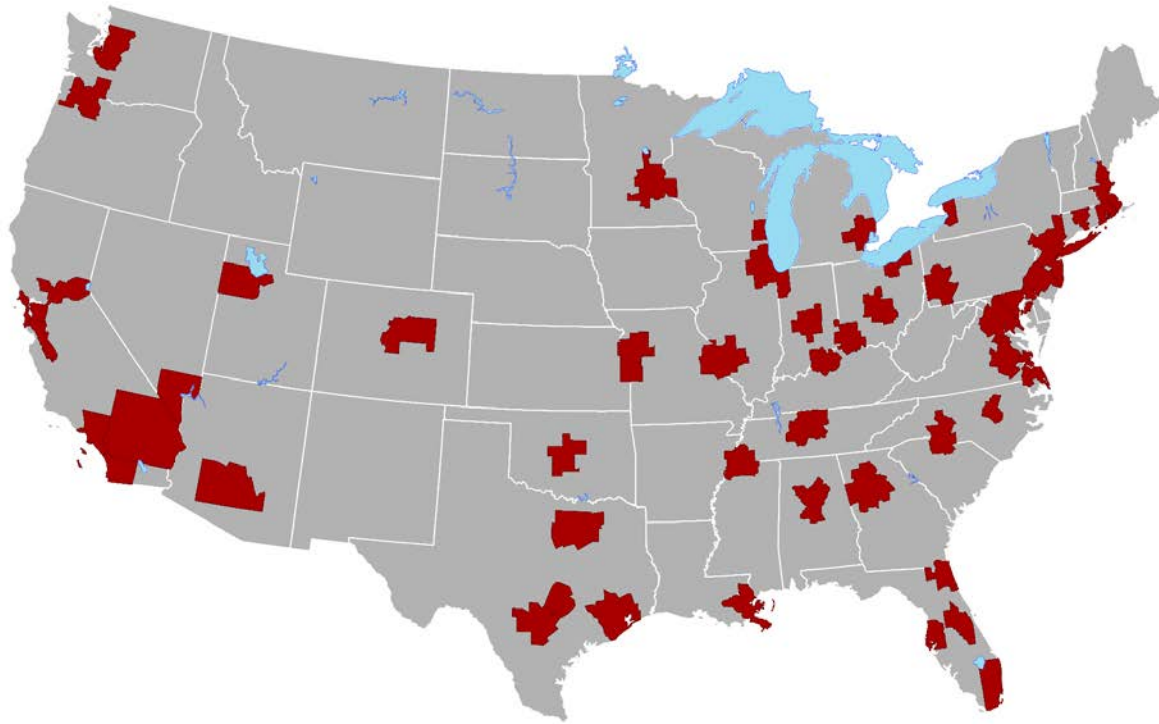
Previous Research: Portland

- Online Seminar:
<http://trec.pdx.edu/events/professional-development/four-types-cyclists-what-do-we-know-and-how-can-it-help>
- Jennifer Dill and Nathan McNeil, "Four Types of Cyclists? Examination of Typology for Better Understanding of Bicycling Behavior and Potential," *Transportation Research Record: Journal of the Transportation Research Board*, 2387: 129-138, 2013.

This Research: Survey

- Survey done in cooperation with the National Association of Realtors®
- The sample included adults living in the 50 largest metropolitan statistical areas (MSAs) in the U.S.
- The survey was conducted May 13-19, 2015.
 - 1,000 respondents were interviewed by phone by American Strategies (679 by landline and 322 by wireless phone). Margin of error 3.1%
 - 2,000 respondents were surveyed on-line by YouGov. Margin of error 2.2%
- Responses were weighted to better match demographics according to the American Community Survey and the two samples were combined.

Methodology: Metro Areas Sampled



Our Sample vs. ACS (Census) data

The survey sample is pretty similar to the population

		50 largest MSAs	Survey sample
HH Income (2013 3yr ACS)	Less Than \$15,000	11.7%	11.2%
	\$15,000 to less than \$50,000	31.7%	38.2%
	\$50,000 to less than \$75,000	17.5%	18.9%
	\$75,000 to less than \$100,000	12.2%	12.2%
	\$100,000 to less than \$150,000	14.4%	10.6%
	\$150,000 or more	12.6%	8.9%
Gender (2013 ACS 5yr)	Male	49.0%	47.6%
	Female	51.0%	52.4%
Age (2013 ACS 5yr)	18 to 24 years	12.6%	10.9%
	25 to 34 years	18.7%	17.0%
	35 to 44 years	18.2%	17.3%
	45 to 54 years	19.1%	17.9%
	55 to 64 years	15.2%	19.3%
	65 to 74 years	8.8%	11.1%
	75 or older	7.3%	6.5%
Education - 25 years and over (2013 ACS 5yr)	Did not complete high school	13.6%	6.3%
	High school graduate (includes equivalency)	25.0%	29.1%
	Some college or Associates	28.0%	30.0%
	Bachelor's degree	20.7%	21.3%
	Graduate or professional degree	12.7%	11.9%

Overview of Process

- Part 1: Level of comfort
 - Based upon stated level of comfort bicycling on non-residential streets with and without bike lanes
- Part 2: Interest in bicycling more
 - With adjustment for actual cycling behavior

Part 1: Level of Comfort

I'm going to read a list of places you could ride a bike. For each place, please tell me how comfortable you would feel biking there using a scale of 1 to 4, with 1 meaning you would be "very uncomfortable," and 4 meaning you would be "very comfortable."

- A path or trail separate from the street.
- "a major urban or suburban street with four lanes, on-street parking, traffic speeds of 30-35 miles per hour, and no bike lane." (How comfortable would you be biking there?)
- What if a striped bike lane was added? (How comfortable would you be biking there?)

Part 1: Level of Comfort

Level of Comfort	Possible Type
Very comfortable on non-residential street without bike lanes	Strong and Fearless
Very comfortable on non-residential street with bike lanes	Enthusied and Confident
Less than very comfortable on non-residential street with or without bike lanes	Interested (??) but Concerned
Very uncomfortable on path or trail separate from the street	Now Way No How
Physically unable to ride a bicycle or don't know how to ride a bicycle	Now Way No How

Part 2: Interest in Cycling

Please tell me if you strongly disagree, somewhat disagree, somewhat agree, or strongly agree.

...I would like to travel by bike more than I do now.

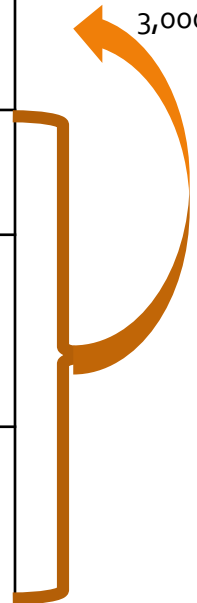
Part 1 + Part 2

Level of Comfort	Interest in riding more	Possible Type
Very comfortable on non-residential street without bike lanes	Any response	Strong and Fearless
Very comfortable on non-residential street with bike lanes	Any response	Enthused and Confident
Less than very comfortable on non-residential street with or without bike lanes	Strongly agree, somewhat agree, somewhat disagree, I don't know	Interested but Concerned
	Strongly disagree	Now Way No How
Very uncomfortable on path or trail separate from the street	Any response	Now Way No How
Physically unable to ride a bicycle or don't know how to ride a bicycle	Any response	Now Way No How

Part 1 + Part 2

Level of Comfort	Interest in riding more	Possible Type
Very comfortable on non-residential street without bike lanes	Any response	Strong and Fearless
Very comfortable on non-residential street with bike lanes	Any response	Enthused and Confident
Less than very comfortable on non-residential street with or without bike lanes	Strongly agree, somewhat agree, somewhat disagree, I don't know	Interested but Concerned
	Strongly disagree	Now Way No How
Very uncomfortable on path or trail separate from the street	Any response	Now Way No How
Physically unable to ride a bicycle or don't know how to ride a bicycle	Any response	Now Way No How

People who had ridden in last 30 days (80 of 3,000)



Results

Type	Geller estimate for Portland	Our Portland region survey	National Survey (metro areas)	
Strong & Fearless	<1%	4%	7%	} 12%
Enthused & Confident	7%	9%	5%	
Interested but Concerned	60%	56%	51%	
No Way No How	33%	31%	37%	

Why differences?

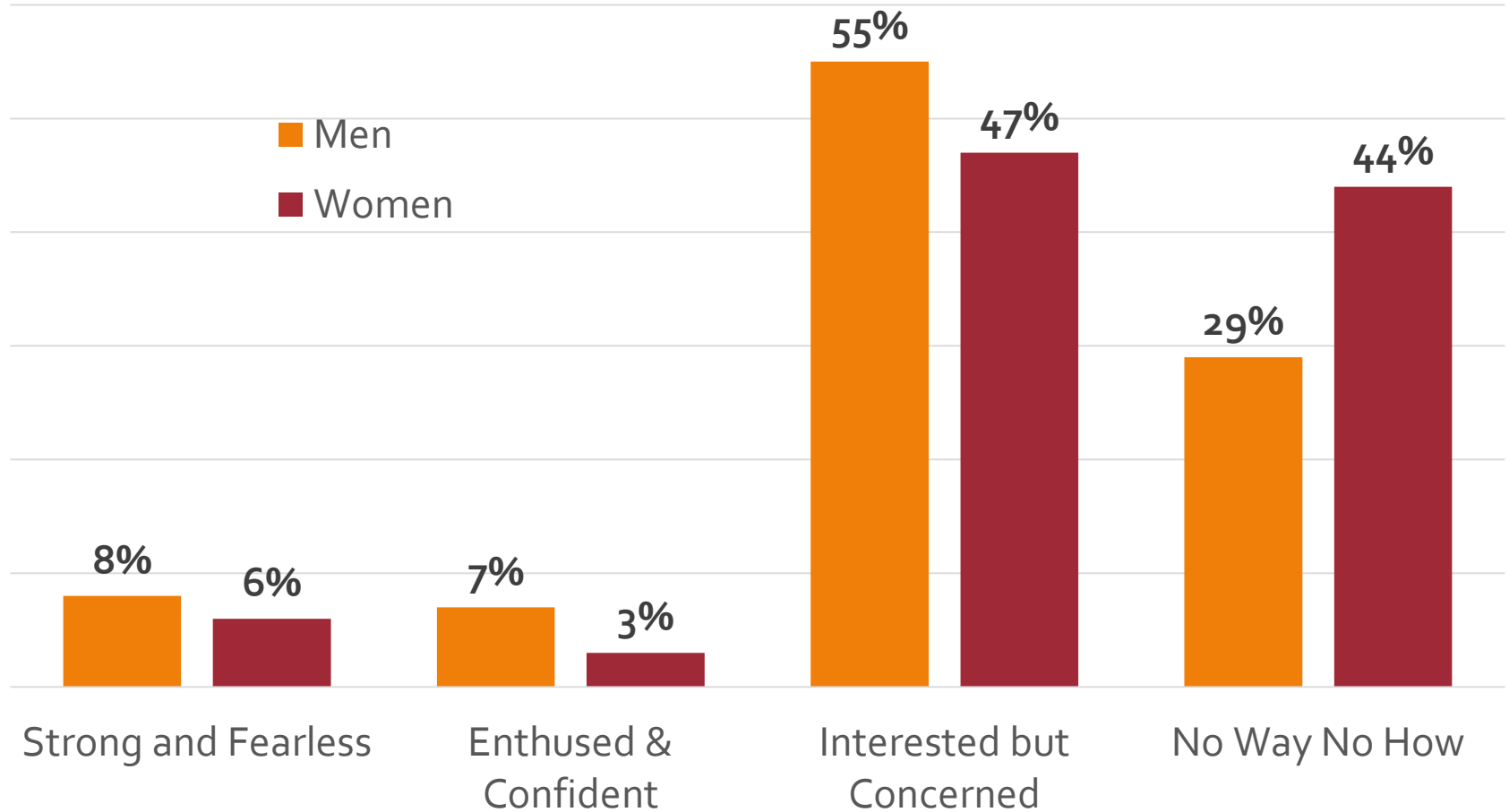
- There likely are differences geographically
- Method was abbreviated in the national sample (1 comfort question vs. 3)
 - ➔ Less stable measure of comfort, particularly for the Strong and Fearless.

More importantly...

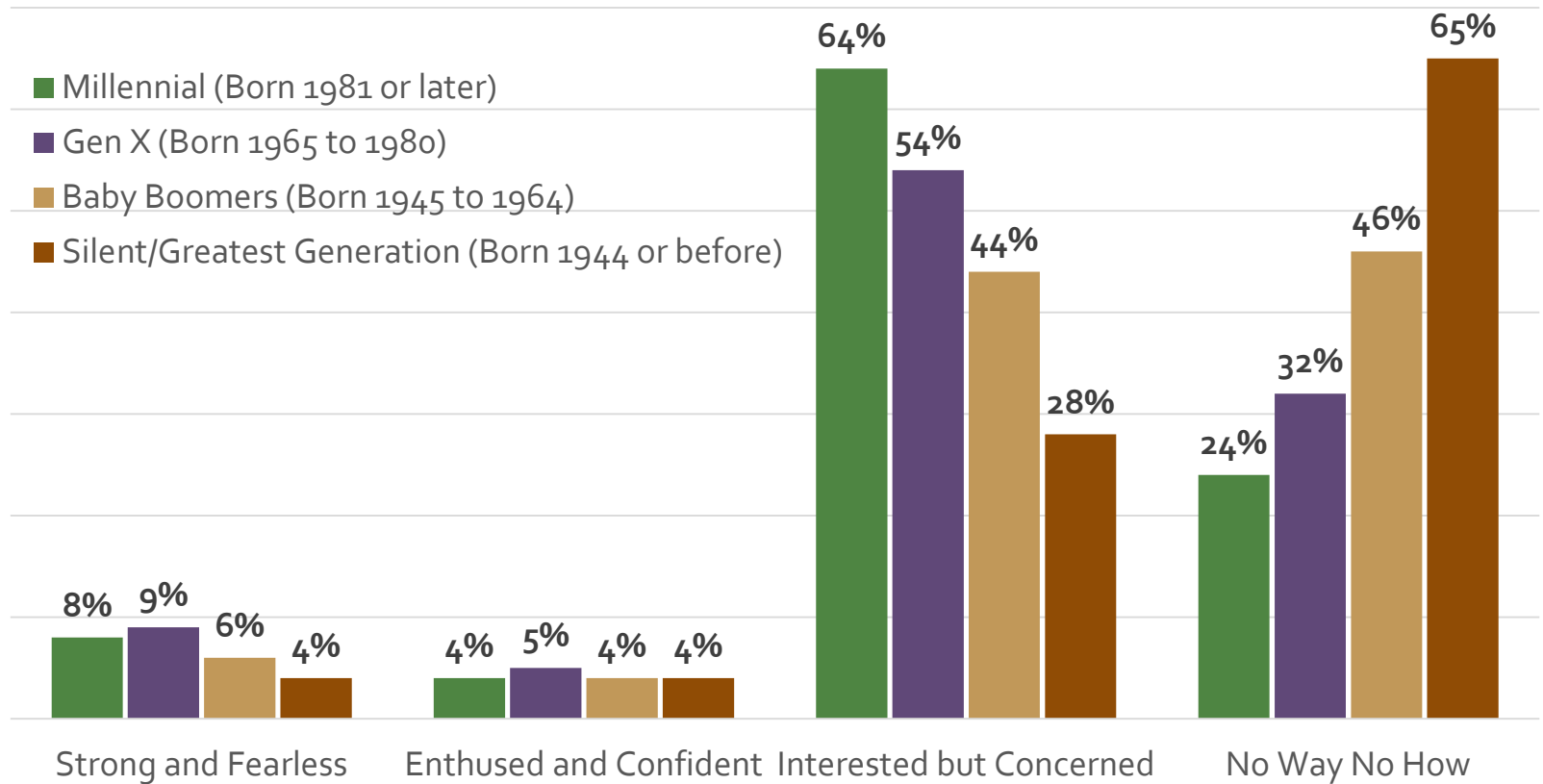
- Don't focus on the exact numbers

Who are they?

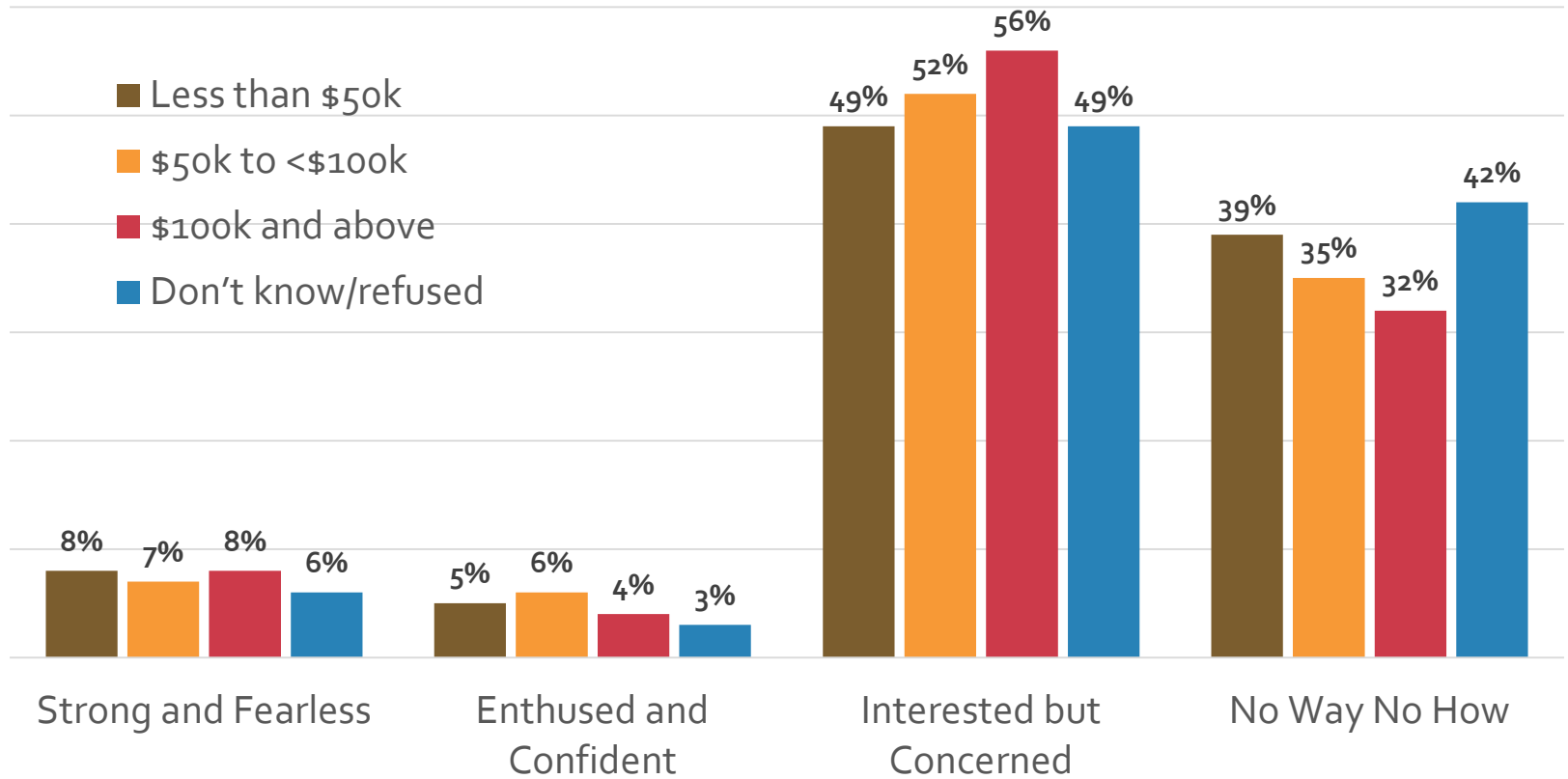
Gender



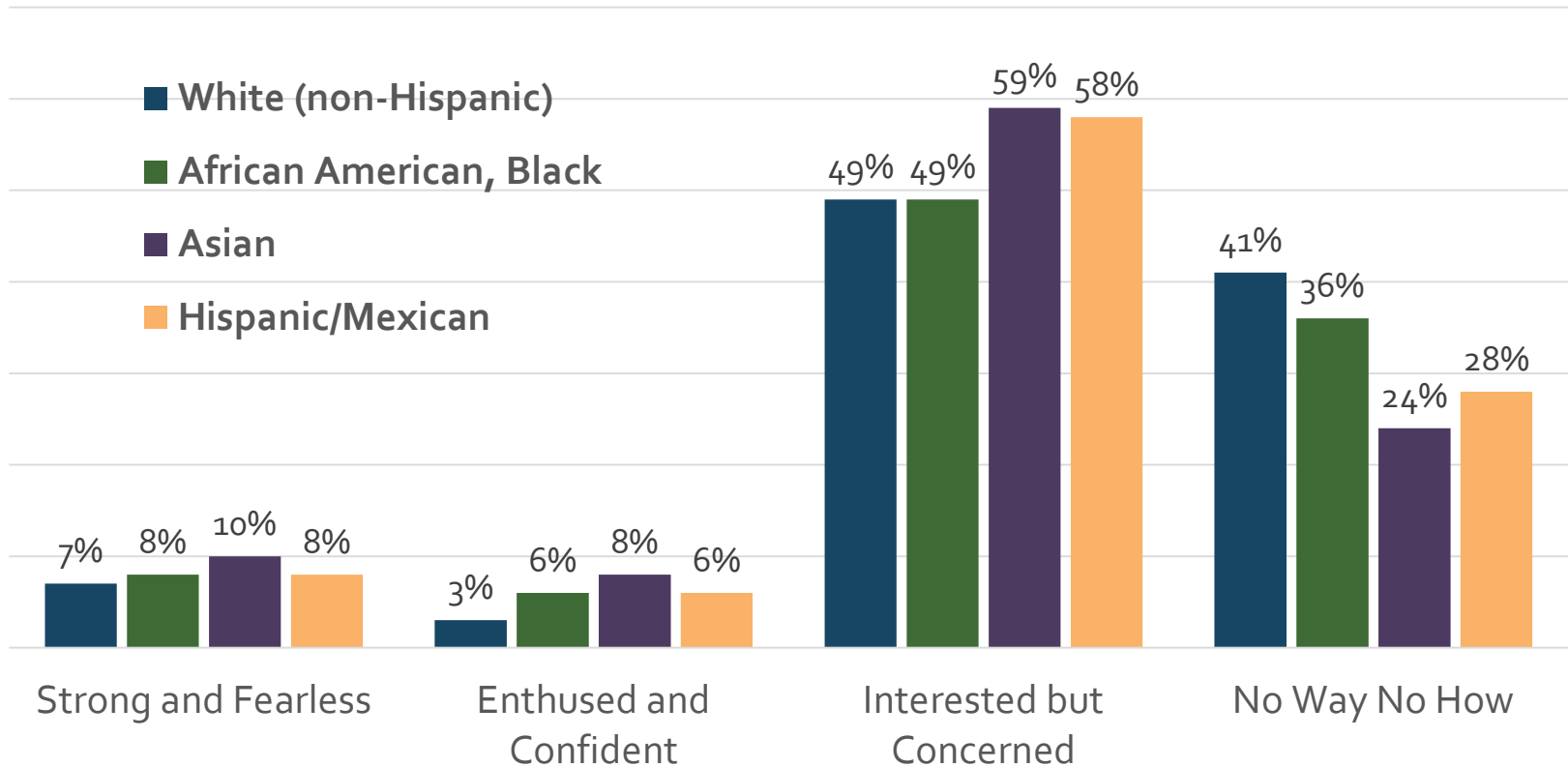
Age



Income

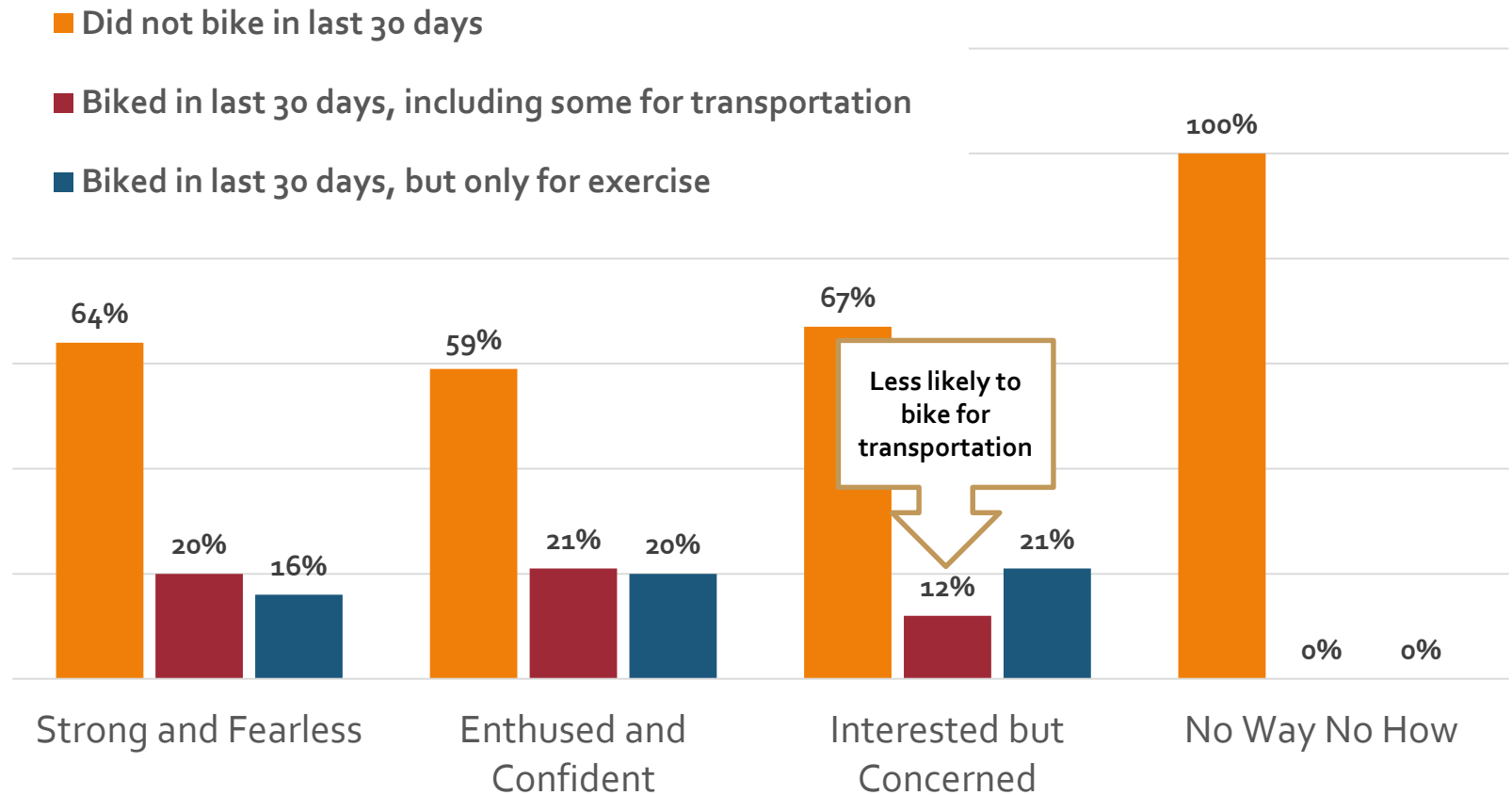


Race/Ethnicity

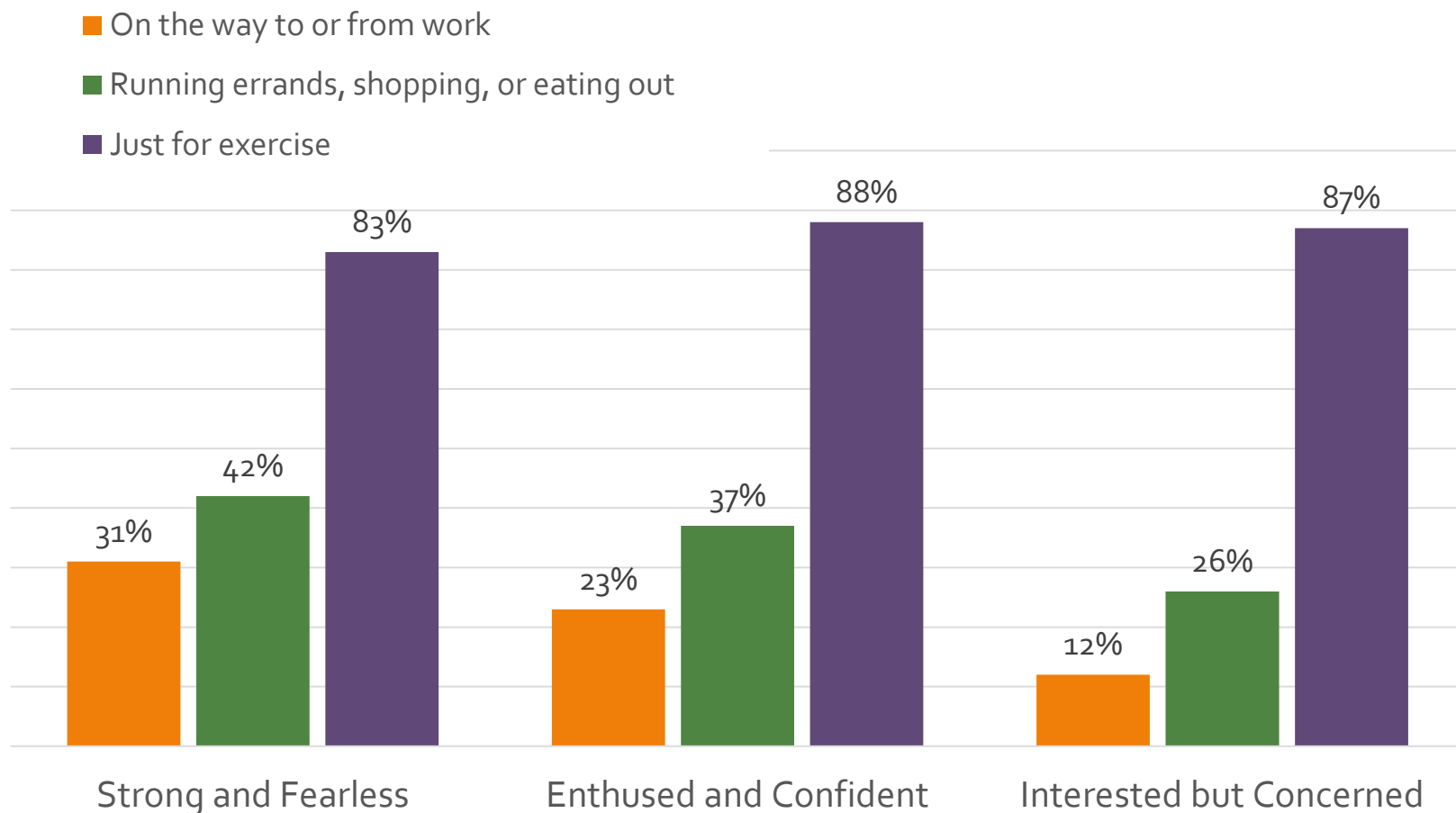


How much do they bike?

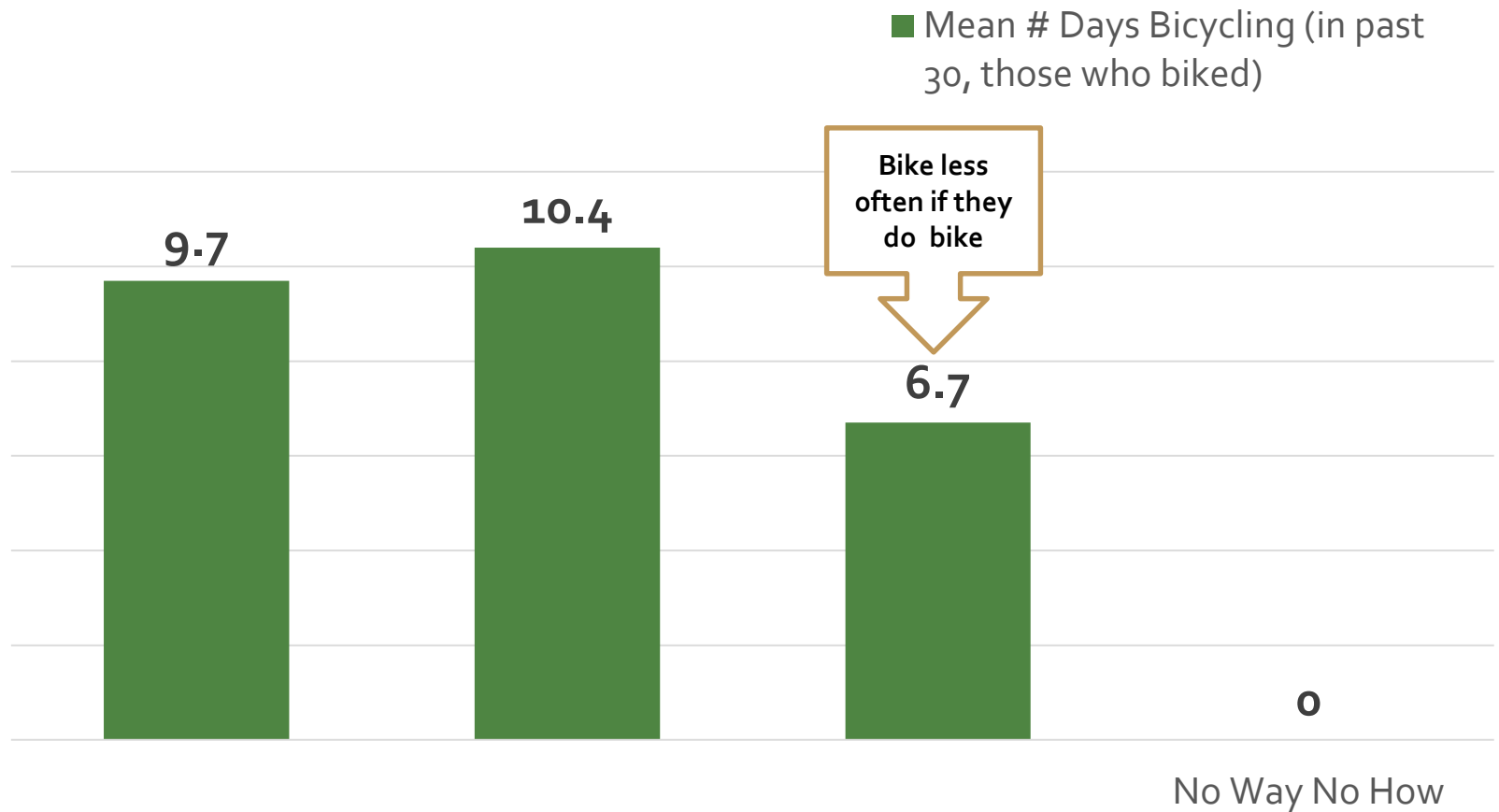
In the past 30 days...



Any of the bike trips in the past 30 days...

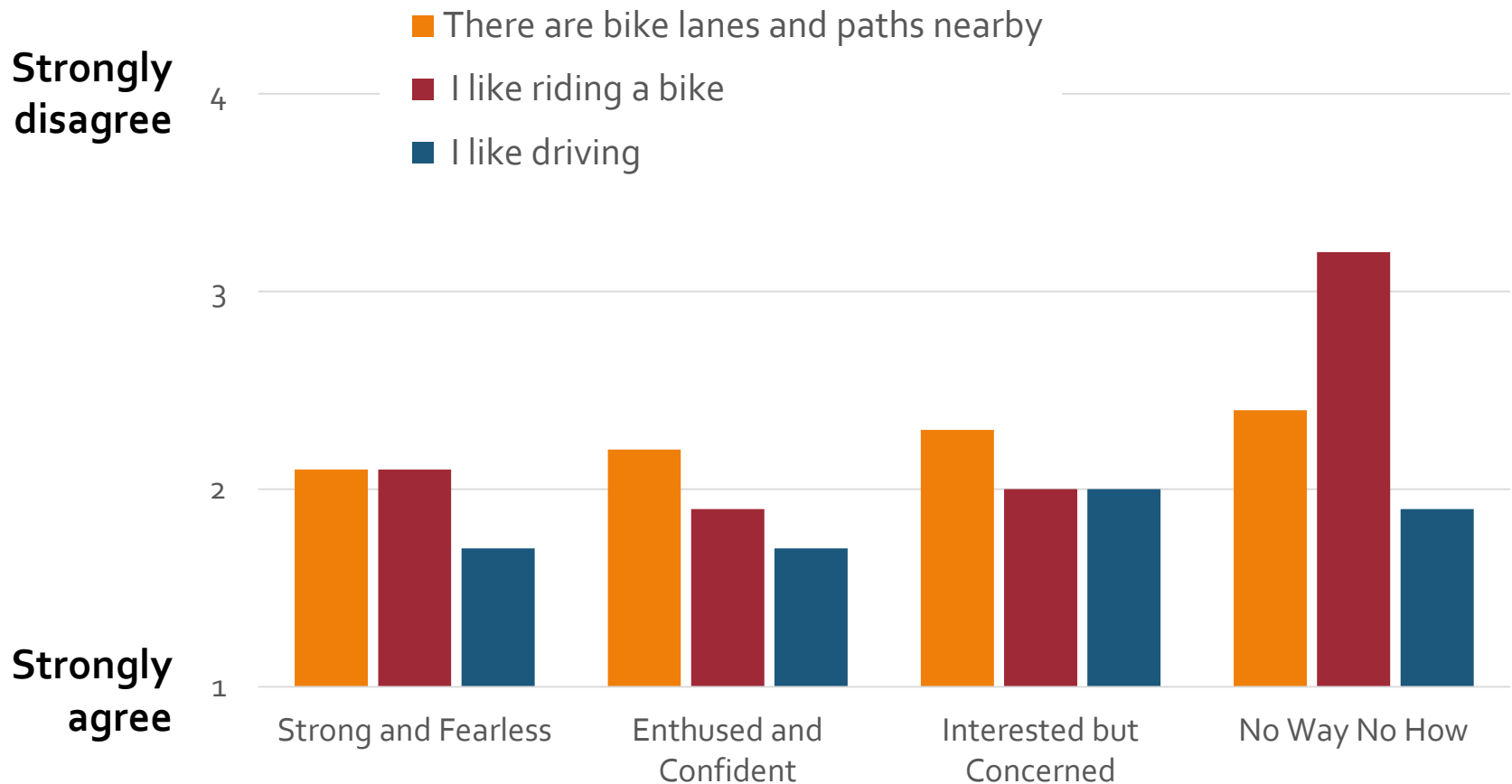


In the past 30 days...



What might influence future
behavior?

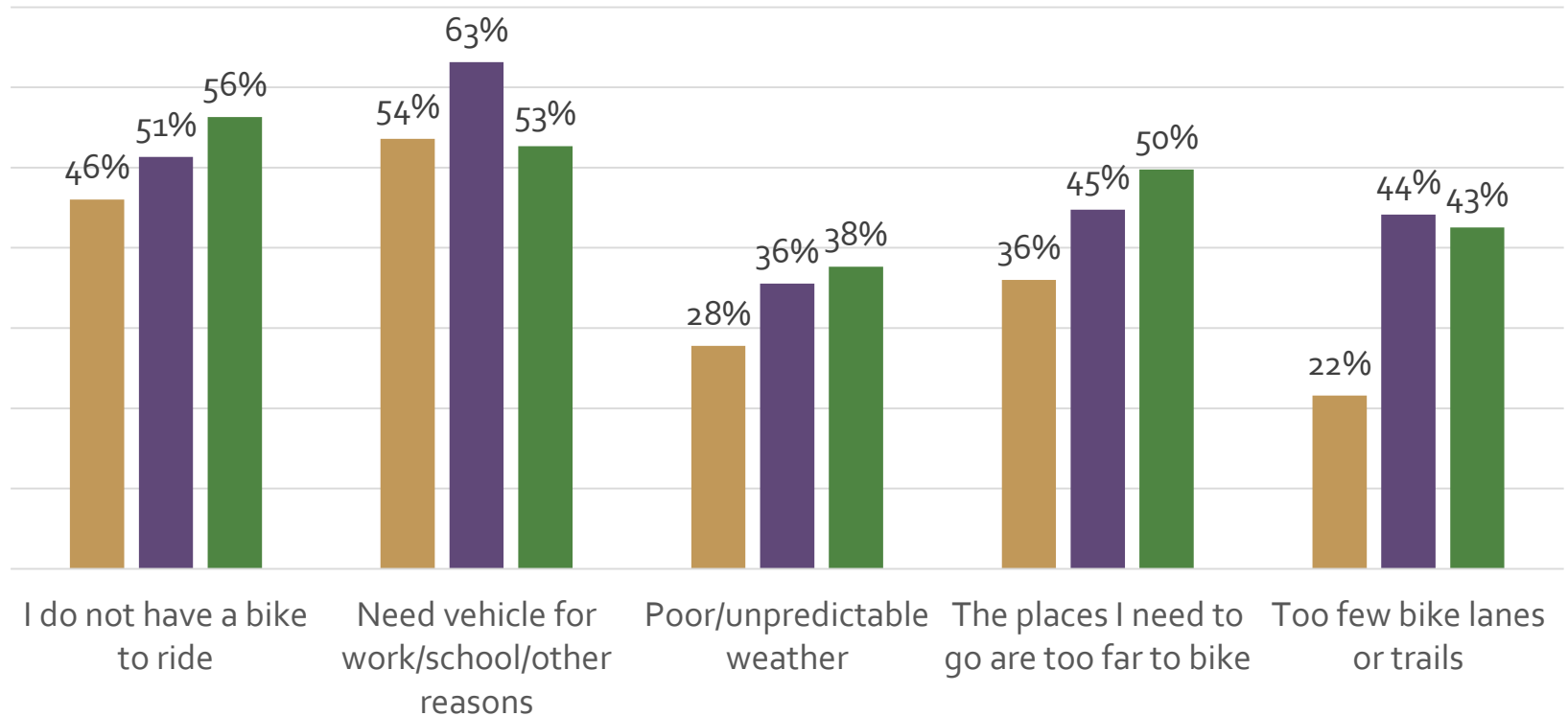
Environment & Attitudes



Barriers

■ Strong and Fearless ■ Enthused and Confident ■ Interested but Concerned

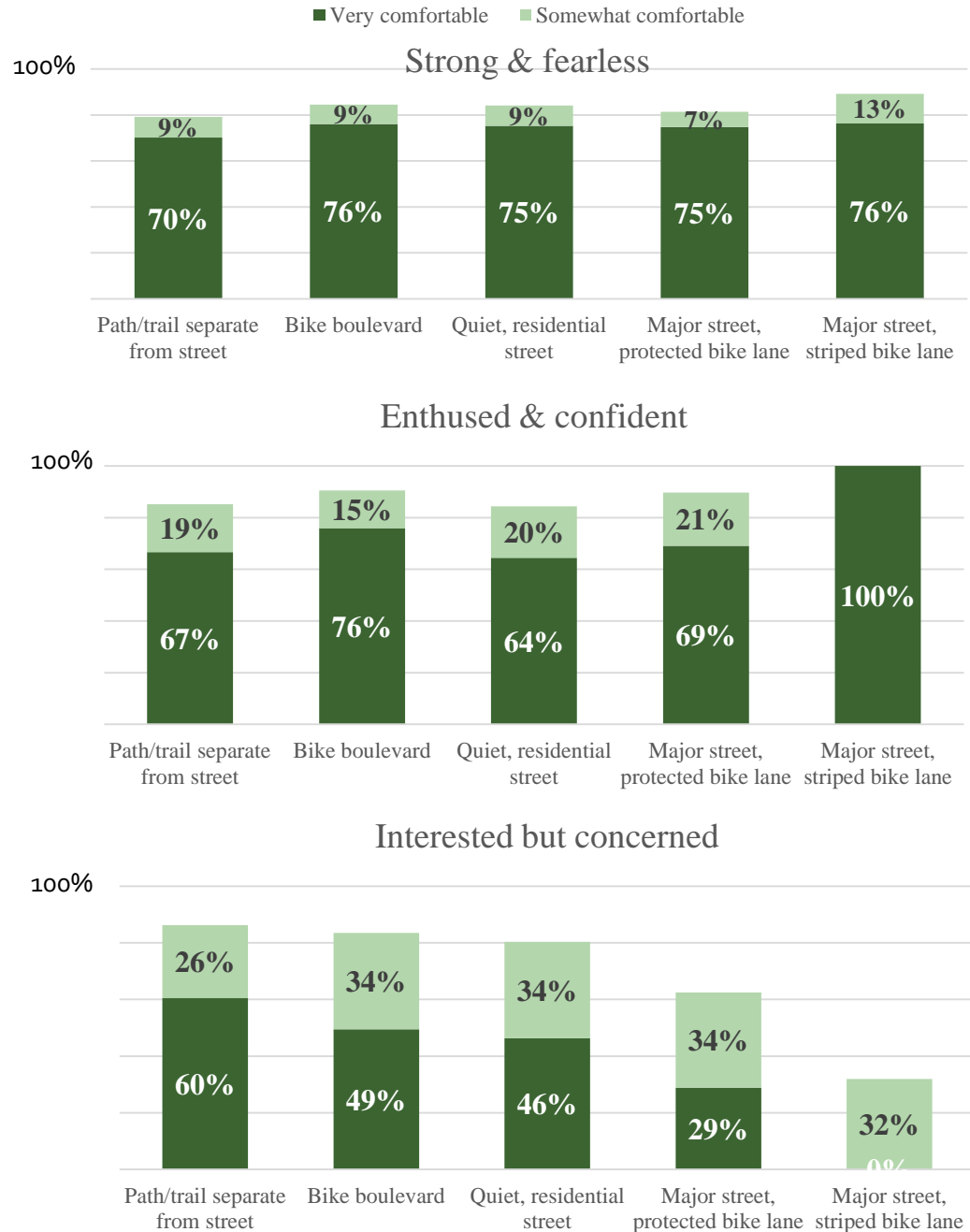
Did not bike in past 30 days



The role of infrastructure

More separation from motor vehicle traffic may help increase bicycling among Interested but Concerned.

Remember that definitions are based on comfort level on major street with/without striped bike lanes.



Conclusions

- The general consistency of the typology breakdown between Portland and this national survey suggests that the overall framework has merit.
- For planning efforts, it appears that around a third of the population is in the no way no how group and a plurality (or majority) in the interested but concerned group.
- The typology does not, in and of itself, indicate whether someone actually rides a bicycle at all.
 - May be related to frequency and type of riding

Conclusions

- Targeting the Interested but Concerned
 - Many don't like driving (more than other groups)
 - They do like biking equally
 - Currently bike more for recreation/exercise
 - Infrastructure needs to address comfort level
 - Not having a bike is a barrier

Limitations, etc.

- Surveys have inherent limitations
- Assignment to a type based on fewer questions than previous research
- Many barriers and motivations for bicycling not addressed in this survey
- More analysis to be done, including linking to built environment

Questions?

- Funding support from NITC (US DOT National University Transportation Center) and National Association of Realtors®
- Thanks to co-author Nathan McNeil